

### **Remarks**

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Thus, the corrections noted by the Examiner in item 1 on page 2 of the Office Action have been made in the specification, rendering the objection to the disclosure moot.

Claim 1 has been amended to recite a pH of 3 to 4.3 for the jelly food (based on the disclosure at page 7, lines 4-5 of the specification), and also to incorporate the subject matter of claim 2. Accordingly, claims 2 and 3 have been cancelled.

Claim 4 has been amended for clarification.

Claims 5-8 have been cancelled.

The patentability of the presently claimed invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 1-8 under 35 U.S.C. §103(a) as being unpatentable over Emoto in view of Saitoh et al. is respectfully traversed.

The present invention provides a jelly food having high storage stability without forming a precipitate in a weakly acidic region, even when it contains soybean protein. The invention is based on the present inventors' novel findings that only soybean 7S protein having a low-phytic acid content has improved stability at a weakly acidic region of about pH 4.0 (page 3, lines 3-7 of the specification).

The Examiner states that motivation to combine the 7S soybean protein product taught by Saitoh et al. in a jelly food such as one taught by Emoto is provided by Bringe. However, Bringe does not provide such motivation.

That is, although the Examiner states that Bringe notes that compositions containing greater levels of  $\beta$ -conglycinin have preferable gelling properties in a weakly acidic region, Bringe merely discloses that "heat-induced gel or viscosity forming properties of BC stabilized emulsions (i.e., BC-SPI-acid ha (column 6, line 9) = 7S rich protein) were optimum near pH 5.6 and significantly greater than control (i.e., soybean protein isolate) and other soybean protein ingredients" (column 8, lines 42-45). Since the

isoelectric point of 7S protein is in the vicinity of pH 4.5 (column 23, lines 34-35), this disclosure only teaches that gel forming properties of 7S protein becomes maximum in an alkaline region of the isoelectric point of 7S protein. There is no teaching or suggestion that solubility of low-phytic acid soybean 7S protein is significantly greater than conventional soybean 7S protein in an acidic region of the isoelectric point of 7S protein (see Fig. 1 of the present application). The present invention is directed to a jelly food at pH 3 to 4.3.

Bringe does not teach or suggest a composition in an acidic region of pH 3 to 4.3, much less provide any motivation to combine Emoto and Saitoh et al. so as to achieve the present invention.

As stated by the Examiner, Emoto teaches a gelatinous food product having a protein content ranging from 2-60% and a pH in the range of 3.3 to 4. Examples of the protein include soybean protein.

However, the gel of Emoto is a composite of a gel formed with a gelling agent and an isoelectric gel of the protein (page 1, lines 9-11; page 4, line 12 to page 5, line 2). Further, on page 13, Gelling agent section, Emoto discloses that gelling agents can impart to the gel desired gel strength and water-releasability, in particular, gel strength and water-releasability such that the gel can be crushed easily in the mouth with the tongue. From this disclosure, it can be presumed that the gelatinous food product of Emoto is a protein which has an agglomerate state in the vicinity of the isoelectric point thereof and hardened with a gelling agent. Gelatinous food using soybean protein at pH 3.7-3.9 is disclosed in Examples 2, 3, 4 and 5 of Emoto. Since a soybean protein is slightly soluble in this pH range, it forms a tofu-like agglomerate gel (see Comparative Examples 1 and 2 of the present application). That is, the gelatinous food product of Emoto is a composite of an agglomerate gel of a protein slightly soluble in an acidic region and a gel formed with gelling agent, and it is totally different from the jelly food at an acidic region which is produced by using lowphytic acid soybean 7S protein having high solubility in an acidic region, and is free from rough mouthfeel (Examples 1-5 of the present application).

It should be noted that a protein used in the gel of Emoto is not a protein soluble in an acidic region, but a protein which forms an isoelectric gel at pH 3.3 to 4 (page 11, lines 3-5 of Emoto). This has no relation to Bringe's finding that heat-induced gel or

viscosity forming properties are optimum near pH 5.6 and significantly greater than control and other soybean protein ingredients.

Indeed, Saitoh et al. disclose low-phytic acid soybean 7S protein. However, even if the Saitoh et al. reference is combined with a composite gel of Emoto, the combination does not teach or suggest that, by using low-phytic acid soybean 7S protein, it is possible to obtain jelly food comprising soybean protein which has high storage stability and hardly forms a precipitate in a weakly acidic region, and has excellent flavor.

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied references.

Therefore, in view of the foregoing amendments and remarks, it is submitted that each of the grounds of objection and rejection set forth by the Examiner has been overcome, and that the present application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

Toshimitsu BABA et al.

By:



---

Michael R. Davis  
Registration No. 25,134  
Attorney for Applicants

MRD/pth  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
November 30, 2007